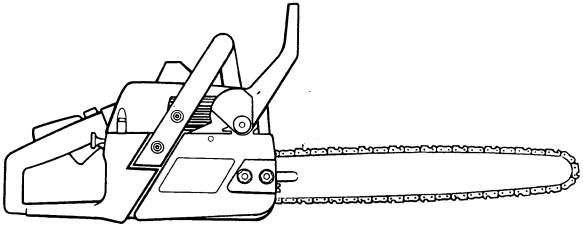
Poulan PRO®



210

OPERATOR'S MANUAL

⚠ WARNING:
Carefully read the Operator's Manual and follow all Warnings and Safety Instructions. Failure to do so can result in serious injury.

MANUAL DEL OPERADOR

⚠ ADVERTENCIA:
Lea el manual del operador y respete las advertencias e instrucciones de seguridad. Al no hacerlo corre el riesgo de sufrir lesiones graves.

MANUEL DE L'OPÉRATEUR

⚠ AVERTISSEMENT :
Lisez attentivement le Manuel de l'opérateur et suivez les instructions de sécurité. Dans le cas contraire, vous risquez des blessures graves.

ENGLISH

ESPANOL

FRANÇAIS

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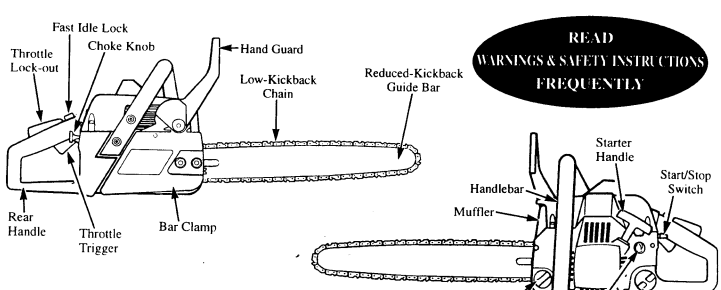


NOTE: Illustrations may differ from actual model due to design changes.
Manufactured under one or more of the following patents: 4,940,028. Other U.S. and foreign patents pending.

SPECIFICATION CHART

MODEL:	210
DISPLACEMENT:	36cc 2.2 CID
GUIDE BAR:	14" Guide Bar
CHAIN:	Low Profile 3/8" Pitch Chrome Cutters 91 VG-52
SPARK PLUG:	Champion (CJ-7Y)
SPARK PLUG GAP:	.025" (.64mm)
IGNITION:	Solid State
IGNITION TIMING:	Fixed; non-adjustable
MODULE AIR GAP:	.010" to .014" (.25 - .35mm)
OILER:	Automatic
FUEL MIX:	Gasoline/Oil Mixture - 40:1 (see "Fueling Your Engine")
MUFFLER:	Temperature Limiting/Spark Arresting

ACCESSORIES

File – flat – 6"	**952-055027**
File – round – 5/32"	**952-055085**
Safety Glasses	**952-701645**
Spark Plug	**952-030150**
Fuel & Oil Cap Kit	**952-044640**
Air Filter	**952-047313**
Chain Brake Kit	**952-069662**
2-Cycle Engine Oil	
3.2 oz. – 40:1	**952-030132**
8 oz. – 40:1	**952-030127**
Bar & Chain Lubricant	
32 oz.	**952-030129**
1 gal.	**952-030130**
Guide Bar – 14"	**952-044367**
Chain – 14"	**952-051209**
Scrench	**530-031163**

NOTICE: Refer to the Code of Federal Regulations, Section 1910.266, Logging Operations; ANSI B175.1-1991; ANSI-Z133.1; and state safety codes when using a chain saw for producing income.

WARNINGS AND SAFETY INSTRUCTIONS

CAUTION: ALWAYS DISCONNECT SPARK PLUG WIRE AND PLACE WIRE WHERE IT CANNOT CONTACT SPARK PLUG TO PREVENT ACCIDENTAL STARTING WHEN SETTING UP, TRANSPORTING, ADJUSTING OR MAKING REPAIRS EXCEPT CARBURETOR ADJUSTMENTS.

WARNING:
BECAUSE A CHAIN SAW IS A HIGH-SPEED WOOD-CUTTING TOOL, SPECIAL SAFETY PRECAUTIONS MUST BE OBSERVED TO REDUCE THE RISK OF ACCIDENTS. CARELESS OR IMPROPER USE OF THIS TOOL CAN CAUSE SERIOUS INJURY.

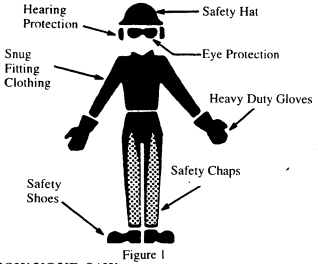


Figure 1

KNOW YOUR SAW

1. **Read your operator's manual carefully** until you completely understand and can follow all safety rules, precautions, and operating instructions before attempting to operate the unit.
2. **Restrict the use of your saw to adult users** who understand and can follow safety rules, precautions, and operating instructions found in this manual. **THIS SAW IS FOR OCCASIONAL USE ONLY.**

PLAN AHEAD

1. **Wear protective gear. Figure 1.** Always use steel-toed safety footwear with non-slip soles; snug-fitting clothing; heavy-duty, non-slip gloves; eye protection such as non-fogging, vented goggles or face screen; an approved safety hard hat; and sound barriers -- ear plugs or mufflers to protect your hearing. Regular users should have hearing checked regularly as chain saw noise can damage hearing.
2. **Keep all parts of your body away from the saw chain when the engine is running.**
3. **Keep children, bystanders, and animals a minimum of 30 feet (10 meters) away from the work area.** Do not allow other people or animals to be near the chain saw when starting or cutting with chain saw.
4. **Do not handle or operate a chain saw when you are fatigued, ill, upset, or if you have taken alcohol, drugs, or medication.** You must be in good physical condition and mentally alert. Chain saw work is strenuous. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating a chain saw.
5. **Do not attempt to use your chain saw during bad weather** conditions such as strong wind, rain, snow, ice, etc., or at night.
6. **Carefully plan your sawing operation in advance.** Do not start cutting until you have a clear work area, secure footing, and, if you are felling trees, a planned retreat path.
7. **Do not operate a chain saw that is damaged, improperly adjusted, or not completely and securely assembled. Always replace the handguard immediately if it becomes damaged, broken, or is otherwise removed.**
8. **Keep the handles dry, clean, and free of oil or fuel mixture.**
9. **Hand carry with the engine stopped, muffler away from your body,** and the guide bar and chain to the rear and covered preferably with a scabbard.

FUEL HANDLING

1. **Eliminate all sources of sparks or flames in the areas where fuel is mixed, poured, or stored.** There should be no smoking, open flames, or work that could cause sparks. Allow engine to cool before refueling.
2. **Mix and pour fuel in an outdoor area** on bare ground; store fuel in a cool, dry, well ventilated place; and use an approved, marked container for all fuel purposes.
3. **Wipe up all fuel spills before starting saw.**
4. **Move at least 10 feet (3 meters) from the fueling site before starting the engine.**
5. **Do not smoke while handling fuel or while operating the saw.**
6. **Turn the engine off and let your saw cool in a non-combustible area,** not on dry leaves, straw, paper, etc. Slowly remove fuel cap and refuel unit.
7. Store the unit and fuel in an area where fuel vapors cannot reach sparks or open flames from water heaters, electric motors or switches, furnaces, etc.

SAFETY NOTICE

Exposure to vibration through prolonged use of gasoline powered hand tools could cause blood vessel or nerve damage in the fingers, hands, and joints of people prone to circulation disorders or abnormal swellings. Prolonged use in cold weather has been linked to blood vessel damage in otherwise healthy people. If symptoms occur such as numbness, pain, loss of strength, change in skin color or texture, or loss of feeling in the fingers, hands or joints, discontinue the use of this tool and seek medical attention. An anti-vibration system does not guarantee the avoidance of these problems. Users who operate power tools on a regular basis must monitor closely their physical condition and the condition of this unit.

LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS "ATTENTION! BE ALERT! YOUR SAFETY IS INVOLVED!"

WARNINGS AND SAFETY INSTRUCTIONS

(See Additional Safety Instructions throughout this Manual)

GUARD AGAINST KICKBACK

Kickback is a dangerous reaction that can lead to serious injury. Do not rely on the presence of the chain brake to protect you against injury from kickback. Although it may appear that the chain brake is stopping quickly, it still may not be fast enough to provide protection in the event of kickback. As a chain saw user, you must take special safety precautions to help keep your cutting jobs free from accident or injury.

⚠ KICKBACK WARNING

Contact at the upper portion of the tip of the guide bar can cause the chain to dig into the object, which stops the chain for an instant. The result is a lightning fast, reverse reaction which kicks the guide bar up and back toward the operator. This is kickback. If the saw chain is pinched along the top of the guide bar, the guide bar can be driven rapidly back toward the operator. Either of these reactions can cause loss of saw control which can result in serious injury.

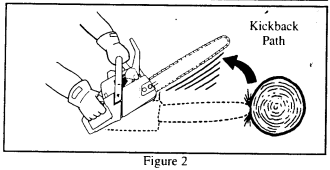


Figure 2

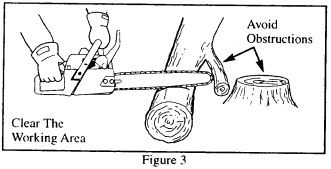


Figure 3

REDUCE THE CHANCE OF KICKBACK

1. **Recognize that kickback can happen.** With a basic understanding of kickback, you can reduce the element of surprise which contributes to accidents.
2. **Never let the moving chain contact any object at the tip of the guide bar.** Figure 2.
3. **Keep the working area free from obstructions** such as other trees, branches, rocks, fences, stumps, etc. Figure 3. Eliminate or avoid any obstruction that your saw chain at the bar tip could hit while you are cutting.
4. **Keep your saw chain sharp and properly tensioned.** A loose or dull chain can increase the chance of kickback. Check sharpness and tension at regular intervals with the engine stopped, never with the engine running. Make sure the bar clamp nuts are securely tightened after tensioning the chain.
5. **Begin and continue cutting at full throttle.** If the chain is moving at a slower speed, there is greater chance for kickback.
6. **Cut one log at a time.**
7. **Use extreme caution when re-entering a previous cut.**
8. **Do not start cutting with the bar tip (plunge or boring cuts).**
9. **Watch for shifting logs** or other forces that could close a cut and pinch or fall into chain.
10. **Use the Reduced-Kickback Guide Bar and Low-Kickback Chain** specified for your saw.

CHAIN BRAKE

- **A chain brake is:**
  - **A device for stopping the chain when activated.** Figures 4 and 5.
  - ***To be used only in an emergency.*** **Do not use otherwise except for testing or making adjustments.**
- **A chain brake will not:**
  - **Prevent kickback.**
  - **Work if it is not maintained properly.** Check to see if the brake works properly before every cutting job. If the chain does not appear to stop instantly, contact your Authorized Service Dealer.

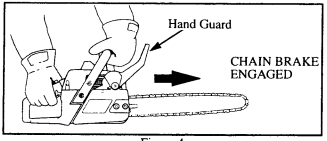


Figure 4

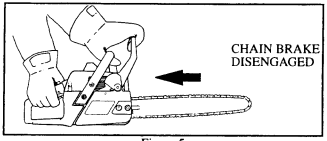


Figure 5

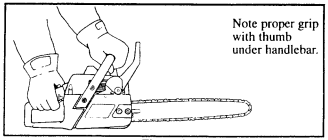


Figure 6

WARNINGS AND SAFETY INSTRUCTIONS (continued)

MAINTAIN CONTROL

1. **Keep a good, firm grip on the saw with both hands when the engine is running and don't let go.** Figure 7. A firm grip can neutralize kickback and help you maintain control of the saw. Keep the fingers of your left hand encircling and your left thumb under the front handlebar. Keep your right hand completely around the rear handle. Keep your left arm straight with the elbow locked.
2. **Position your left hand on the front handlebar so it is in a straight line with your right hand on the rear handle.** Figure 7.
3. **Never reverse right and left hand positions for any type of cutting.** There are no left handed chain saws.
4. **Stand with your weight evenly balanced on both feet.**
5. **Stand slightly to the left side of the saw to keep your body from being in a direct line with the cutting chain.** Figure 7.
6. **Do not overreach.** You could be drawn or thrown off balance and lose control of the saw.
7. **Do not cut above shoulder height.** It is difficult to maintain control of saw above shoulder height.

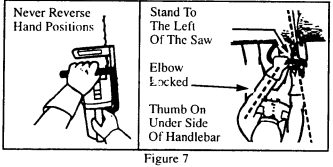


Figure 7

OPERATE YOUR SAW SAFELY

1. **Do not operate a chain saw that is damaged, improperly adjusted, or not completely and securely assembled.**
2. **Operate the chain saw only outdoors.**
3. **Do not operate saw from a ladder or in a tree.**
4. **Position all parts of your body away from the saw chain when the engine is running.**
5. **Cut wood only.** Do not use your saw to pry or shove away limbs, roots, or other objects.
6. **Make sure the chain will not make contact with any object while starting the engine.** Never try to start the saw when the guide bar is in a cut or kerf.
7. **Use extreme caution when cutting small size brush and saplings.** Slender material can catch the saw chain and be whipped toward you or pull you off balance.
8. **Be alert for springback** when cutting a limb that is under tension so you will not be struck by the limb or saw when the tension in the wood fibers is released.
9. **Do not put pressure on the saw at the end of a cut.** Applying pressure can cause you to lose control when the cut is completed.
10. **Stop the engine before setting the saw down.**

MAINTAIN YOUR SAW IN GOOD WORKING ORDER

1. **Have all chain saw service performed by a qualified service dealer** with the exception of the items listed in the maintenance section of this manual. For example, if improper tools are used to remove or hold the flywheel when servicing the clutch, structural damage to the flywheel can occur and cause the flywheel to burst.
2. **Keep fuel and oil caps, screws, and fasteners securely tightened.**
3. **Keep the handles dry, clean, and free of oil or fuel mixture.**
4. **Make certain the saw chain stops moving when the throttle trigger is released.** For correction, refer to "Carburetor Adjustments."
5. **Stop the saw if the chain strikes a foreign object.** Inspect the unit and repair or replace parts as necessary.
6. **Never modify your saw in any way.** Use only attachments recommended by the manufacturer.
7. **Always replace the handguard immediately if it becomes damaged, broken, or removed.**

CARRY AND STORE YOUR SAW SAFELY

1. **Hand carry with the engine stopped, the muffler away from your body,** and the guide bar and chain to the rear covered preferably with a scabbard.
2. **Before transporting in any vehicle or storing in any enclosure,** allow your saw to cool completely, cover the bar and chain, and properly secure to avoid turnover, fuel spillage, or damage.
3. **Empty the fuel tank before storing the tool.** Use the fuel left in the carburetor by starting the engine and letting the engine run until it stops.
4. **Store unit and fuel in a dry area out of the reach of children.** Do not store where fuel vapors can reach sparks or an open flame from hot water heaters, electric motors or switches, furnaces, etc.

KICKBACK SAFETY FEATURES

- **Low-Kickback Chain,** designed with a contoured depth gauge and guard link which deflect kickback force and allow wood to gradually ride into the cutter. Figure 8. Low-Kickback Chain is a chain which has met kickback performance requirements of American National Standards Institute, Inc. (ANSI) B175.1 (Safety Requirements for Gasoline-Powered Chain Saws) when tested on a representative sample of chain saws below 3.8 cubic inch displacement specified in ANSI B175.1.
- **Reduced-Kickback Guide Bar,** designed with a small radius tip which reduces the size of the kickback danger zone on the bar tip. Figure 8. A Reduced-Kickback Guide Bar is one which has been demonstrated to significantly reduce the number and seriousness of kickback when tested in accordance with ANSI B175.1.
- **Handguard,** designed to reduce the chance of your left hand contacting the chain if your hand slips off the front handlebar.
- **Position of front and rear handlebars,** designed with distance between handles and "in-line" with each other. The spread and "in-line" position of the hands provided by this design work together to give balance and resistance in controlling the pivot of the saw back toward the operator if kickback occurs.

WARNINGS AND SAFETY INSTRUCTIONS (continued)

⚠ WARNING

The following features are included on your saw to help reduce the hazard of kickback; however, such features will not totally eliminate this dangerous reaction. As a chain saw user, do not rely only on safety devices. You must follow all safety precautions, instructions, and maintenance in this manual to help avoid kickback and other forces which can result in serious injury.

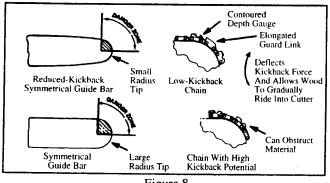

Contoured Depth Gauge
Elongated Guard Link
Small Radius Tip
Deflects Kickback Force And Allows Wood To Gradually Ride Into Cutter
Reduced-Kickback Symmetrical Guide Bar
Low-Kickback Chain
Can Obstruct Material
Symmetrical Guide Bar
Large Radius Tip
Chain With High Kickback Potential

Figure 8

STATE AND FEDERAL REQUIREMENTS

Your saw is equipped with a temperature limiting muffler and spark arresting screen which meets the requirements of California Codes 4442 and 4443. All U.S. forest land and the states of California, Idaho, Maine, Minnesota, New Jersey, Washington, and Oregon require many internal combustion engines to be equipped with a spark arrestor screen by law.

If you operate a chain saw in a state or locale where such regulations exist, you are legally responsible for maintaining the operating condition of these parts. Failure to do so is a violation of the law. Refer to the "Spark Arrestor" section for maintenance.

SAVE THESE INSTRUCTIONS

KNOW YOUR UNIT

A. INTRODUCTION

Your saw has been designed with safety in mind and includes the following safety features as standard equipment.

- Reduced-Kickback Guide Bar
- Low-Kickback Chain
- Handguard
- Spark Arrestor
- Temperature Limiting Muffler

B. CARTON CONTENTS

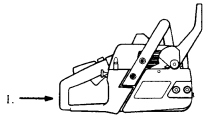
KEY

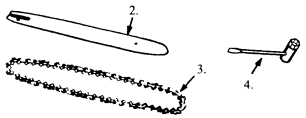
NO.		QTY.
1.	Engine	1
2.	Guide Bar	1
–	Operator's Manual (not shown)	1
–	Loose Parts Bag (not shown)	1
	LOOSE PARTS BAG CONTENTS	
3.	Chain	1
4.	Scrench	1

C. UNPACKING INSTRUCTIONS

1. After removing the contents from the carton, check parts against the Carton Contents list.
2. Examine the parts for damage. Do not use damaged parts.
3. *Notify your POULAN PRO dealer immediately if a part is missing or damaged.*

NOTE: It is normal to hear the fuel filter rattle in an empty fuel tank.





ASSEMBLY

A. GETTING READY

1. READ YOUR OPERATOR'S MANUAL CAREFULLY

Your Operator's Manual has been developed to help you prepare your saw for use and to understand its safe operation. It is important that you read your manual completely to become familiar with the unit *before* you begin assembly or attempt operation. Your POULAN PRO dealer is available to show you how to operate your saw. Be sure to ask for assistance.

2. HAVE THE FOLLOWING AVAILABLE

a. Protective gloves.
b. Approved, marked fuel container.
c. One gallon regular unleaded gasoline.
d. 2 cycle, air-cooled engine oil (See the "Fueling Your Engine" section).
e. Bar and Chain Oil (See the "Bar and Chain Oil" section).
f. Scrench.

B. ATTACHING THE BAR AND CHAIN

- **Your saw is equipped with a Reduced-Kickback Bar and a Low-Kickback Chain.**
- **Always use the Reduced-Kickback Guide Bar and Low-Kickback Chain specified for your chain saw model when replacing these parts. See the "Specifications" section.**

⚠ WARNING

Do not start engine without guide bar and chain completely assembled. Otherwise, the clutch can come off and cause serious injury.

CAUTION: Wear protective gloves when handling or operating your saw; the chain is sharp and can cut you even when it is not moving!

1. Remove the following parts as shown in Figure 9, using the scrench provided with the unit.
   a. Bar clamp nuts.
   b. Bar clamp.
   c. Shipping spacer (throw away).
2. Turn the adjusting screw (Figures 10 & 13) counterclockwise to move the adjusting pin (Figure 10) almost as far as it will go to the rear.
3. Mount the guide bar with the slotted end over the bar studs. Figure 11.
4. Hold the chain with the cutters facing as shown in Figure 12 (inset).
5. Place the chain over and behind the clutch drum and onto the sprocket. Figure 12.
6. Slide the guide bar toward the rear of the saw as far as possible.
7. Fit the bottom of the drive links between the teeth in the sprocket behind the clutch drum.
8. Start at the top of the bar and fit chain drive links into the groove around the guide bar. Figure 12.
9. Pull the guide bar forward until the chain is snug into the guide bar groove.
10. Verify that the adjusting pin is in the rearmost position. Hold the guide bar against the saw frame and install the bar clamp. Make sure that the adjusting pin is positioned in the small hole in the guide bar.
11. Make sure the chain brake assembly actuating lever is in the "disengaged" position to allow the brake band to fit over the clutch drum. To disengage lever, pull it toward the rear of the brake assembly. Figure 5.
12. Install the bar clamp unit, making sure the brake spring band is over the clutch drum. Tighten nuts finger tight only.
13. Proceed to the "Chain Tension" section.

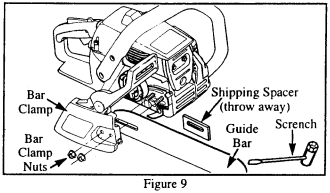


Figure 9

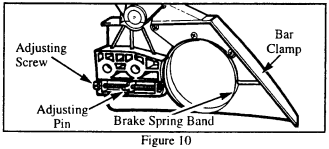


Figure 10

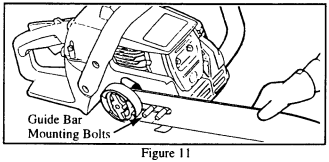


Figure 11

Figure 12

C. CHAIN TENSION

- **Chain tension is very important –**
  - A loose chain will wear the bar and itself.
  - A loose chain can jump off bar while you are cutting.
  - A tight chain can break or damage the saw and/or bar.
- **The chain stretches during use,** especially when new. Check tension periodically as follows:
  - each time the saw is used;
  - more frequently when the chain is new;
  - as the chain warms up to normal operating temperature.
- **Chain tension is correct when the chain** will move freely around the bar and chain does not sag beneath the guide bar.
- **Chain tensioning procedure.**

CAUTION: Always wear gloves when handling the chain. The chain is sharp and can cut you even when it is not moving!

1. Loosen bar clamp nuts.
2. Lift up the tip of the guide bar and turn the adjusting screw clockwise until the chain does not sag beneath the guide bar. Figure 13.
3. While lifting the tip of the guide bar, tighten the bar clamp nuts with the scrench.
4. Make sure the chain rotates freely around the bar.

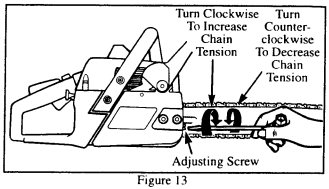


Figure 13

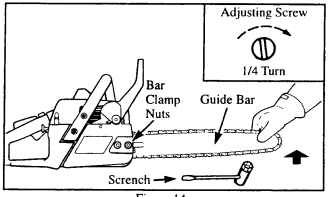


Figure 14

D. BAR AND CHAIN OIL

- **The Guide Bar and Cutting Chain require continuous lubrication to remain in operating condition.** Lubrication is provided by the automatic oiler system when the oil tank is kept filled.
  - **Lack of oil will quickly ruin the Bar and Chain.**
  - **Too little oil will cause overheating** shown by smoke coming from the chain and/or discoloration of the guide bar rails.
- **Genuine POULAN/POULAN PRO Bar and Chain Oil is recommended to protect your unit against excessive wear from heat and friction.** POULAN/POULAN PRO oil resists high temperature thinning. If POULAN/POULAN PRO Bar and Chain Oil is not available, use a good grade SAE 30 oil. Never use waste oil for bar and chain lubrication.
- **In freezing weather oil will thicken, making it necessary to thin bar and chain oil with a small amount of #1 Diesel Fuel or kerosene.** Bar and chain oil must be free flowing for the oil system to pump enough oil for adequate lubrication.

1. USE THE FOLLOWING:

30° or above – 100% lubricant – undiluted.
30° - 0° F – 95% lubricant to 5% #1 Diesel Fuel or kerosene.
Below 0° F – 90% lubricant to 10% #1 Diesel Fuel or kerosene.

2. HOW TO FILL THE OIL TANK

a. Stop the engine.
b. Turn the saw on its side with oil cap up. See oil cap location. Figure 15.
c. Loosen cap slowly and remove.
d. Fill the oil tank.
e. Replace the oil cap securely.

3. USING THE OILER

Your saw is equipped with an automatic oiler.

- **The automatic oiler supplies lubrication to the bar and chain at all times while the engine is running.**

4. **IMPORTANT POINTS TO REMEMBER**
   a. **Fill the oil tank each time you refill the fuel tank** to ensure that there will be sufficient oil for the chain whenever you start and run the saw.
   b. **The saw will normally use approximately one tank of bar and chain oil for each tank of fuel mixture.** If less oil is used, check for a plugged oil hole in the guide bar.
   c. **Keep sawdust and debris cleaned from the oil holes in the guide bar** to allow an adequate oil flow to the bar and chain.
   d. **Keep spilled and spattered oil wiped from the unit to avoid sawdust and debris build-up.** Pay particular attention to oil on the fan housing and starter assembly to avoid overheating the engine.
   e. **It is normal for some oil to appear under the saw after the engine stops.** This is excess oil draining from the bar and chain when the saw is not in use.

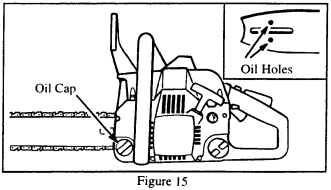


Figure 15

OPERATION – Fueling Your Engine

BEFORE FUELING ENGINE:

WARNING:
BE SURE TO READ THE FUEL HANDLING INFORMATION IN THE WARNINGS AND SAFETY INSTRUCTIONS BEFORE YOU BEGIN.

IF YOU DO NOT UNDERSTAND THE SAFETY RULES, DO NOT ATTEMPT TO FUEL YOUR UNIT; CALL THE CUSTOMER ASSISTANCE HOTLINE AT 1-800-554-6723.

GASOLINE

The two-cycle engine on this product requires a fuel mixture of regular unleaded gasoline and a high quality engine oil for lubrication of the bearings and other moving parts. The correct fuel/oil mixture is 40:1 (see Fuel Mixture Chart). Too little oil or the incorrect oil type will cause poor performance and may cause the engine to overheat and seize.

Gasoline and oil must be premixed in a clean container approved for gasoline. Always use fresh regular unleaded gasoline.

This engine is certified to operate on unleaded gasoline.

2-CYCLE AIR-COOLED OIL

POULAN PRO 40:1, 2-cycle engine oil is strongly recommended. *POULAN PRO oil is specially blended with fuel stabilizers and reduced smoke additives.*

- Fuel stabilizers protect the fuel from oxidation and the formation of gum and varnish.
- Under average conditions, regular unleaded gasoline stays fresh for only 30 to 60 days out of the refinery.
- POULAN PRO 40:1, 2-cycle engine oil with fuel stabilizers will extend the fuel life up to 5 times.

If POULAN PRO 40:1, 2-cycle engine oil is not available, use a good quality 2-cycle engine oil, *formulated for* AIR-COOLED *engines*, that has a recommended fuel mixture of 40:1.

IMPORTANT! Do not use:
- **AUTOMOTIVE OIL**
- **BOAT OILS** (NMMA, BIA, etc.)

These oils do not have proper additives for 2-cycle, AIR-COOLED engines and can cause engine damage.

GASOLINE AND OIL MIXTURE

Mix gasoline and oil as follows:
- Consult Fuel Mixture Chart for correct mixture.
- Do not mix gasoline and oil directly in the fuel tank of the engine.

FOR ONE GALLON OF FUEL:
- Pour 3.2 ounces of high quality, 2-cycle engine oil into an empty container approved for gasoline.
- Add one gallon of regular unleaded gasoline to the container, then securely replace the cap. Shake the container momentarily to assure oil is thoroughly mixed. The fuel is ready for use.

FUEL MIXTURE CHART

Gasoline	Oil (fl. oz.)
1 gallon	3.2
2.5 gallons	8.0

40:1 Fuel:Oil Mix Ratio

NOTE: Measure fuel correctly. Fuel containers can hold more than the manufacturer's specified amount. If too much gasoline is in the container, the resulting gas-to-oil mix will not be correct for proper engine operation.

USING YOUR SAW

A. PRE-OPERATION CHECKS

Each time before operating your saw, always:

1. ✓**Check over the safety rules and precautions in this manual.** Make certain you completely understand and can apply each one.
2. ✓**Check protective gear.** Always use eye, hearing, and head protection devices; safety footwear; protective gloves; and snug fitting clothing.
3. ✓**Check the saw for loose bolts, nuts, or fittings.** Tighten, repair, or replace parts as necessary. Tools required are listed in "Getting Ready" section.
4. ✓**Check the air filter.** Clean the filter before starting the engine. For location, see the "Air Filter" section.
5. ✓**Check the saw chain.** The chain should be sharp and at the correct tension.
6. ✓**Check the fuel tank and oil tank.** Both tanks should be filled.
7. ✓**Check the handles.** Handles should be dry and free of fuel mixture and oil.
8. ✓**Check weather conditions.** Do not use your saw at night or during bad conditions such as strong wind, rain, snow, etc.
9. ✓**Check the work area.** Keep children, bystanders, and animals a safe distance away from the work area when starting or operating the saw -- a minimum of 10 meters (30 feet).

B. STARTING INSTRUCTIONS (Refer to the "Specifications" section for location of controls.)

⚠ WARNING

Always wear gloves; safety footwear; snug fitting clothing; and eye, hearing, and head protection devices when operating a chain saw.

⚠ WARNING

The chain must not move when the engine runs at idle speed. Refer to the "carburetor adjustments" section for correction.

- Fuel engine with 40:1 fuel mix.
- Fill bar oil tank with bar oil. Your saw will use approximately one tank of bar oil for each tank of fuel mix.
- Prime engine by pressing primer bulb 6 times.
- Turn on ignition by moving on/stop switch to "ON" position.
- Actuate choke by pulling blue choke knob fully out if the saw engine is cold, or the saw has run out of fuel. Otherwise, the choke will remain in the off position throughout the starting procedure. Then set the saw on the ground. Make sure the chain is free to turn without contacting any object.
- Grip the front handle with your left hand and place your right foot through the opening in the rear handle.
- Set fast idle by depressing the throttle lock with your right hand. Then squeeze throttle trigger and hold. With your thumb, press the fast idle lock down and hold. Next, release the throttle trigger.
- **If throttle trigger is squeezed accidentally during starting it will be necessary to reset the fast idle lock.**
- Pull starter rope handle with your right hand until engine attempts to start. Then push the blue choke knob in to the half position. Continue pulling the starter rope handle until the engine starts.
- Push choke knob in to the OFF position, then squeeze and release the throttle trigger to allow engine to idle.

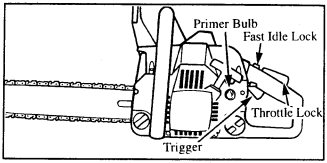


Figure 16

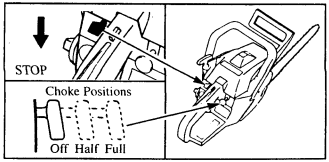


Figure 17

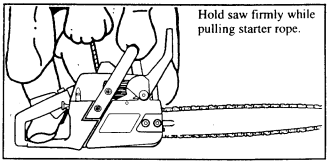


Figure 18

IMPORTANT POINTS TO REMEMBER

- When pulling the starter rope, do not use the full extent of the rope as this can cause the rope to break. Do not let the starter rope snap back -- hold the handle and let the rope rewind slowly.
- If the engine floods, let the unit sit for a few minutes, then repeat starting procedure.
- For cold weather starting, allow the engine to warm up (30-45 sec.) at half-choke position, then move choke to the "Off" position. Do not cut material with the choke at the "Full" or "Half" position.

TYPES OF CUTTING

A. BASIC CUTTING TECHNIQUE

1. IMPORTANT POINTS

a. **Cut wood only.** Do not cut metal; plastics; masonry; non-wood building materials; etc.

b. **Stop the saw if the chain strikes a foreign object.** Inspect the saw and repair or replace parts as necessary.

c. **Keep the chain out of dirt and sand.** Even a small amount of dirt will quickly dull a chain and thus increase the possibility of kickback.

⚠ KICKBACK WARNING

Contact at the upper portion of the tip of the guide bar can cause the chain to dig into the object, which stops the chain for an instant. The result is a lightning fast, reverse reaction which kicks the guide bar up and back toward the operator. This is kickback. If the saw chain is pinched along the top of the guide bar, the guide bar can be driven rapidly back toward the operator. Either of these reactions can cause loss of saw control which can result in serious injury.

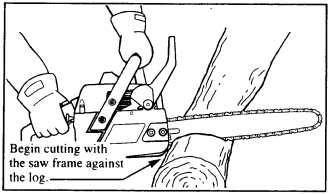


Figure 19

2. OTHER REACTIVE FORCES

Pinch-Kickback and Pull-In occur when the chain is suddenly stopped by being pinched, caught, or by contacting a foreign object in the wood. This stopping of the chain results in a reversal of the chain force used to cut wood and causes the saw to move in the opposite direction of chain rotation. Either reaction can result in loss of control and possible serious injury.

- **Pinch-Kickback –**
  - occurs when the chain on top of the bar is suddenly stopped.
  - *rapidly drives the saw straight back toward the operator.*
- **Pull-In –**
  - occurs when the chain on the bottom of the bar is suddenly stopped.
  - *pulls the saw rapidly forward.*

3. USING YOUR CHAIN SAW

Practice cutting a few small logs using the following technique to get the "feel" of using your saw before you begin a major sawing operation.

a. **Accelerate engine to full throttle before entering cut** by squeezing the throttle trigger.

b. **Begin cutting with the saw frame against the log.** Figure 19.

c. **Keep the engine at full throttle the entire time you are cutting.**

d. **Allow the chain to cut for you;** exert only light downward pressure. If you force the cut, damage to the bar, chain, or engine can result.

e. **Release the throttle trigger as soon as the cut is completed,** allowing the engine to idle. If you run the saw at full throttle without a cutting load, unnecessary wear can occur to the chain, bar, and engine.

f. To avoid losing control when cut is complete, **do not put pressure on saw at end of cut.**

g. **Stop the engine** before setting the saw down.

B. TREE FELLING TECHNIQUES

1. CAREFULLY PLAN YOUR SAWING OPERATION IN ADVANCE

a. **Clear the work area.** You need a clear area all around tree where you can have secure footing.

b. **Study the natural conditions** that can cause the tree to fall in a particular direction.

1.) The **WIND** direction and speed.

2.) The **LEAN** of the tree. The lean of a tree might not be apparent due to uneven or sloping terrain. Use a plumb or level to determine the direction of tree lean.

3.) **WEIGHTED** and **BRANCHES** on one side.

4.) Surrounding **TREES** and **OBSTACLES**.

c. **Look for decay and rot.** If the trunk is rotted, it can snap and fall toward the operator.

d. **Check for broken or dead branches** which can fall on you while cutting.

e. **Make sure there is enough room for the tree to fall.** Maintain a distance of 2 1/2 tree lengths from the nearest person or other objects. Engine noise can drown out a warning call.

f. **Remove dirt, stones, loose bark, nails, staples, and wire from the tree where cuts are to be made.**

g. **Plan to stand on the up-hill side when on a slope.** Figure 20.

h. **Plan to clean retreat path to the rear and diagonal to the line of fall.** Figure 21.

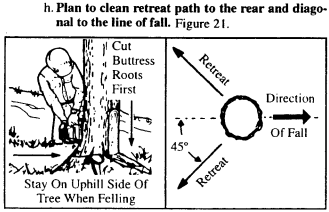


Figure 20 Figure 21

⚠ WARNING

DO NOT CUT:

– near electrical wires or buildings.
– if you do not know the direction of tree fall.
– at night since you will not be able to see well.
– during bad weather - rain, snow, strong wind, etc.

2. FELLING TREES

The notch method is used to fell trees. A notch is cut on the side of the tree in the desired direction of fall. After a felling cut is made on the opposite side of tree, the tree will tend to fall into the notch.

NOTE: If the tree has large buttress roots, remove them before making the notch. Cut into the buttresses vertically, then horizontally. Figure 20.

a. Make notch cut, then felling cut. Figure 22.
   - Cut 1 Cut top of the notch first, through 1/3 of the diameter of the tree.
   - Cut 2 Complete the notch by making bottom cut. Remove the notch of wood.
   - Cut 3 Make felling cut on opposite side of the notch about 2" higher than bottom of notch.

b. Leave enough uncut wood between the felling cut and the notch to form a hinge. Figure 23.

NOTE: The hinge helps to keep the tree from twisting and falling in the wrong direction.

c. Use a wedge if there is any change that the tree will not fall in the desired direction.

⚠ WARNING

Stay on the uphill side of the terrain to avoid injury from the tree rolling or sliding downhill after it is felled. Figure 21.

NOTE: Before felling cut is complete, use wedges to open the cut when necessary to control the direction of fall. Use wood or plastic wedges, but *never* steel or iron, to avoid kickback and chain damage.

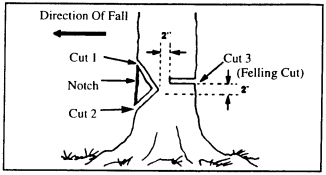


Figure 22

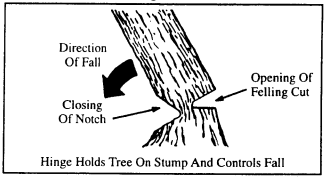


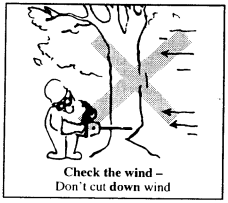
Figure 23

d. Be alert to signs that the tree is ready to fall:
   1.) Cracking sounds.
   2.) Widening of the Felling Cut.
   3.) Movement in the upper branches.

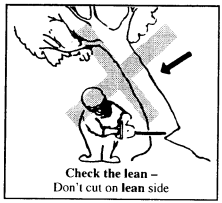
e. As tree starts to fall, *stop saw, and get away quickly on your planned retreat path.*

f. Be extremely cautious with partially fallen trees that may be poorly supported. When a tree doesn't fall completely, set the saw aside and pull down the tree with a cable winch, block and tackle, or tractor. To avoid injury, do not cut down a partially fallen tree with your saw.

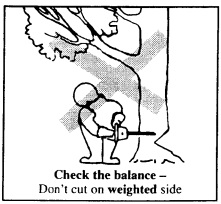
DON'T PUT YOURSELF IN THESE POSITIONS



Check the wind –
Don't cut **down** wind



Check the lean –
Don't cut on **lean** side



Check the balance –
Don't cut on **weighted** side

C. BUCKING

Bucking is the term used for cutting a fallen tree to the desired log size.

1. IMPORTANT POINTS

a. **Cut only one log at a time.**

b. **Cut shattered wood very carefully.** Sharp pieces of wood could be flung toward operator.

c. **Use a sawhorse to cut small logs.** Never allow another person to hold the log while cutting and never hold the log with your leg or foot.

d. **Do not cut in an area where logs, limbs, and roots are tangles such as in a blown down area.** Drag the logs into a clear area before cutting by pulling out exposed and cleared logs first.

e. **Give special attention to logs under strain to prevent the saw from pinching.** Make the first cut on the pressure side to relieve the stress on the log. Figure 24.

2. TYPES OF CUTTING USED (Figure 25)

– **Overcutting –** begin on the top side of the log with the bottom of the saw against the log; exert light pressure downward.

– **Undercutting –** begin on the under side of the log with the top of the saw against the log; exert light pressure upward. During undercutting, the saw will tend to ***push*** back at you. Be prepared for this reaction and hold the saw firmly to maintain control.

⚠ WARNING

Never turn the saw upside down to undercut. The saw cannot be controlled in this position.

⚠ WARNING

If saw becomes pinched or hung in a log, don't try to force it out. You can lose control of the saw resulting in injury and/or damage to the saw. Stop the saw, drive a wedge of plastic or wood into the cut until the saw can be removed easily. Figure 26. Restart the saw and carefully re-enter the cut. To avoid kickback and chain damage, do not use a metal wedge. Do not attempt to restart your saw when it is pinched or hung in a log.

3. BUCKING WITHOUT A SUPPORT

a. Overcut with a 1/3 diameter cut.

b. Roll log over and finish with an overcut.

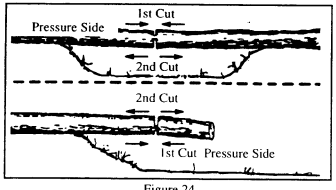


Figure 24

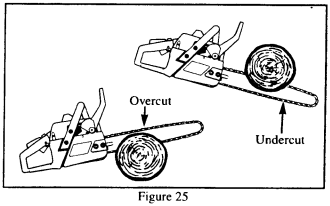


Figure 25

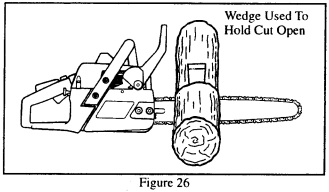


Figure 26

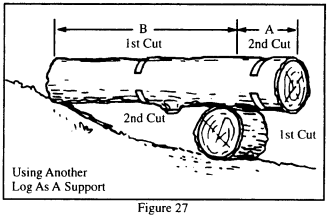


Figure 27

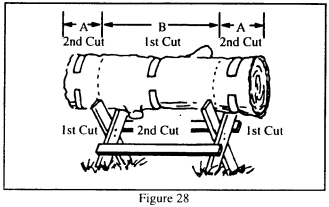
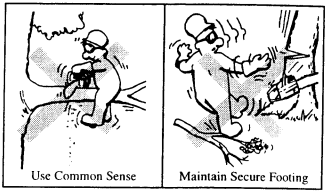


Figure 28

4. **BUCKING USING ANOTHER LOG AS A SUPPORT**
   a. In area A:
      1.) Undercut 1/3 of the way through the log.
      2.) Finish with an overcut.
   b. In area B:
      1.) Overcut 1/3 of the way through the log.
      2.) Finish with an undercut.

5. **BUCKING USING A STAND**
   a. In area A:
      1.) Undercut 1/3 of the way through the log.
      2.) Finish with an overcut.
   b. In area B:
      1.) Overcut 1/3 of the way through the log.
      2.) Finish with an undercut.

⚠ WARNING
Do not stand on the log being cut. Any portion can roll causing loss of footing and control.


Use Common Sense

Maintain Secure Footing

D. LIMBING AND PRUNING

- **Work slowly, keeping both hands firmly gripped on the saw.** Maintain secure footing and balance.
- **Watch out for springpoles.** Use extreme caution when cutting small size limbs. Slender material may catch the saw chain and be whipped toward you or pull you off balance.
- **Be alert for springback.** Watch out for branches that are bent or under pressure as you are cutting to avoid being struck by the branch or the saw when the tension in the wood fibers is released.
- **Keep a clear work area.** Frequently clear branches out of the way to avoid tripping over them.

⚠ WARNING
Never climb into a tree to limb or prune. Do not stand on ladders, platforms, a log, or in any position which can cause you to lose your balance or control of the saw.

1. **LIMBING**
   a. **Always limb a tree after it is cut down.** Only then can limbing be done safely and properly.
   b. **Leave the larger limbs underneath the felled tree to support the tree as you work.**
   c. **Start at the base of the felled tree and work toward top,** cutting branches and limbs. Remove small limbs with one cut. Figure 29.
   d. **Keep the tree between you and the chain.** Cut from the side of the tree opposite the branch you are cutting.
   e. **Remove larger, supporting branches with the 1/3, 2/3 cutting techniques described in the bucking section.**
      1.) Undercut 1/3 of the way through the log.
      2.) Finish with an overcut.
   f. **Always use an overcut to cut small and freely hanging limbs.** Undercutting could cause limbs to fall and pinch the saw.

2. **PRUNING**
   a. **Limit pruning to limbs shoulder height or below.** *Do not cut* if branches are higher than your shoulder. Get a professional to do the job.
   b. **Refer to Figure 30 for pruning technique.**
      1.) Undercut 1/3 of the way through the limb near the trunk of the tree.
      2.) Then make an overcut farther out from the trunk.
      3.) Keep out of the way of the falling limb.
      4.) Finish with a cut flush to the trunk of the tree.

⚠ WARNING
Be alert for and guard against kickback. Do not allow the moving chain to contact any other branches or objects at the nose of the guide bar when limbing or pruning. Allowing such contact can result in serious injury.

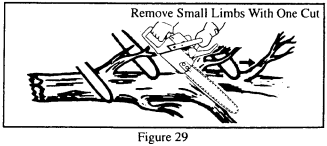


Figure 29

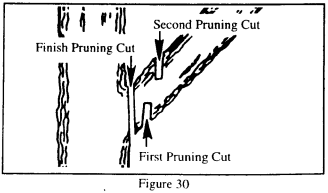


Figure 30

GENERAL MAINTENANCE

A good maintenance program of regular inspection and care will increase the service life and help to maintain the safety and performance of your saw.

- **Make all adjustments or repairs (except carburetor adjustment) with:**
  - spark plug wire disconnected.
  - engine cool as opposed to a saw that has just been run.
- **Use only POULAN PRO accessories and replacement parts as recommended.**
- **Check the saw for loose bolts, screws, nuts, and fittings regularly.** Loose fasteners can cause an unsafe condition as well as damage to your saw.

⚠ WARNING

Have all chain saw service performed by a qualified service dealer other than the items listed in the maintenance section of this manual.

A. GUIDE BAR AND CHAIN

Increase the service life of your Guide Bar and Chain by:

- Using the saw properly and as recommended in this manual.
- Maintaining correct chain tension, page 8.
- Proper lubrication, page 9.
- Regular maintenance as described in this section.

1. CHAIN MAINTENANCE

- **Have the chain sharpened by a qualified service dealer when:**
  - **wood chips are small and powdery.** Wood chips made by the saw chain should be about the size of the teeth of the chain.
  - **saw has to be forced through the cut.**
  - **saw cuts to one side.**

CAUTION: Always wear gloves when handling the chain. The chain can be sharp enough to cut you even though it is too dull to cut wood.

2. GUIDE BAR MAINTENANCE

- **Conditions which can require guide bar maintenance:**
  - **saw cuts to one side.**
  - **saw has to be forced through a cut.**
  - **inadequate supply of oil to bar and chain.**
- **Check the condition of the guide bar each time the chain is sharpened.** A worn guide bar will damage the chain and make cutting more difficult.
- **Replace the guide bar when:**
  - the inside groove of guide bar rails is worn.
  - the guide bar is bent or cracked. See Figure 31.
- **Use only the replacement Reduced-Kickback Guide Bar specified for your saw in the "Specification" section.**

a. Remove the guide bar to service.
b. Clean the oil holes at least once after every five hours of operation.
c. Remove sawdust from the guide bar groove periodically with a putty knife or a wire.

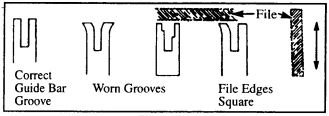


Figure 31

B. SPARK ARRESTOR

- **Carbon deposits build up on the spark arrestor** as the saw is used and must be removed to avoid creating a fire hazard or causing engine damage.
- **Replace the spark arrestor if breaks occur.**
- **Keep the spark arrestor clean at all times. Clean:**
  -- as required.
  -- at least once for each 25-30 hours of operation.

Items required: wire brush, 8 mm or 5/16" wrench.

1. Disconnect the spark plug wire.
2. Remove the muffler cover screws and muffler cover. Figure 32.
3. Remove the spark arrestor screen. Figure 32.
4. Clean the screen with a wire brush or replace if breaks are found.
5. Reassemble parts.

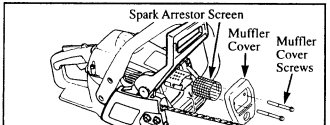


Figure 32

C. AIR FILTER

- **A dirty air filter** decreases the life and performance of the engine and may increase fuel consumption and harmful emissions.
- **Clean the air filter as follows:**
  - check filter after every 20 hours of operation.
  - more frequently in very dusty conditions.

1. Remove the cylinder cover screws and cylinder cover. Figure 33.
2. Pull out the air filter.
3. Wash the filter in soap and water.

CAUTION: Do not use gasoline or any other flammable liquid to clean the filter; doing so can create a fire hazard and produce harmful evaporative emissions.

4. Reverse steps to reassemble.

CAUTION: To avoid damage to the engine, do not operate the unit without the air filter in place.

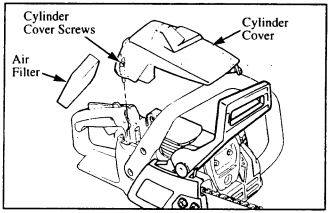


Figure 33

D. CHAIN BRAKE

1. **Keep the clutch drum and brake band clean** and free of sawdust, tree sap, and dirt so the brake will stop the chain in the shortest possible time.

2. **Clean the entire mechanism thoroughly** every 10 tanks of fuel or every 5 hours of operation, whichever is less. *Do not allow oil or grease to get on the band or drum.* Figure 34.

3. **Inspect the assembly for worn or damaged parts** after every time the unit is cleaned. *The entire unit must be replaced when any part is broken, bent, or damaged in any other way. If any portion of the brake band is less than 1/32" thick, the entire chain brake must be replaced.*

4. **Check to see if the brake works properly after any maintenance.** *If the chain does not appear to stop instantly, the chain brake needs replacement. Any time the chain brake operation has noticeably changed it has exceeded its service life and must be replaced.*

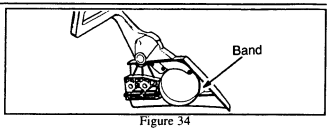


Figure 34

⚠ WARNING

The effectiveness of a chain brake in reducing injuries has not been fully determined. Poulan/Poulan Pro cannot represent that a chain brake is an effective safety device to prevent or reduce the hazard of injuries resulting from kickback. Do not assume that the chain brake will protect you in the event of kickback. Instead, use the saw properly and carefully to avoid kickback. Proper operation is outlined in the Operator's Manual. Repairs on the chain brake must be made by qualified service personnel. Take you saw/chain to the place of purchase if purchased from a servicing dealer, or to the nearest Poulan/Poulan Pro Authorized Master Service Dealer.

E. SPARK PLUG -- Replace the spark plug yearly.

F. CARBURETOR ADJUSTMENTS

Carburetor adjustment is critical and if done improperly can permanently damage the engine as well as the carburetor. Please read all instructions and consult the Troubleshooting section of this manual before beginning this process. If the engine does not operate according to these instructions after repeating the adjusting steps, do not use the unit. For further assistance, contact your Authorized Service Dealer.

The carburetor has been adjusted at the factory for sea level conditions. Adjustments may become necessary if the saw is used at significantly higher altitudes or if you notice any of the following conditions:

- Chain moves when the engine runs at idle speed. See "Idle Speed Adjustment."
- Saw will not idle. See "Idle Speed Adjustment" and "Low Speed Mixture Adjustment."
- Engine dies or hesitates when it should accelerate. See "Acceleration Adjustment."
- Loss of cutting power which is not corrected by air filter cleaning. See "High Speed Mixture Adjustment."

⚠ WARNING

The chain will be moving during most of this procedure. Wear your protective equipment and observe all safety precautions.

⚠ WARNING

In "Low Speed Mixture Adjustment," recheck idle speed after each adjustment. The chain must not move at idle speed.

CARBURETOR PRESETS (Figure 35)

If your engine will not start due to suspected improper carburetor adjustment, the following presets may be required. If used, it is recommended that all steps within the adjustment procedure be completed in order to assure a properly set carburetor. If presets are not needed, proceed to section "Idle Speed Adjustment."

When making adjustments be careful not to force the plastic limiter caps beyond the stops or damage will occur.

Very small adjustments can affect engine performance. It is important to turn the screw a very small amount per adjustment and test performance before making further adjustments. Each adjustment should be no more than the width of the slot in the adjusting screw.

- Turn both of the mixture screws counterclockwise until they stop.
- Turn idle speed screw clockwise until it stops. Now turn counterclockwise 4 1/2 turns.
- If engine fails to start after performing carburetor presets, the unit may be flooded.
- Start the engine and operate for three (3) minutes to warm up. Go to "Adjusting Procedure."

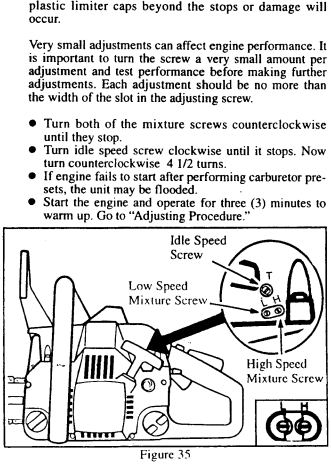


Figure 35

ADJUSTING PROCEDURE

Idle speed adjustment

- Allow the warm engine to idle.
- Adjust the idle speed screw until the engine continues to run without stalling and without the chain moving.
  - *Turn screw clockwise to increase engine speed if engine stalls or dies.*
  - *Turn screw counterclockwise to slow engine down and/or to keep the chain from turning.*
- No further adjustments are necessary if the chain does not move at idle speed and if performance is satisfactory.

Low speed mixture adjustment

- Allow engine to idle.
- Turn the low speed mixture screw slowly clockwise until the RPM starts to drop. Note the position.
- Turn the low speed mixture screw counterclockwise until the RPM speeds up and starts to drop again. Note the position.
- Set the low speed mixture screw at the midpoint between the two positions.

High speed mixture adjustment

IMPORTANT: Do not operate engine at full throttle for prolonged periods while making high speed adjustments as damage to the engine can occur.

- Make a test cut.
- Based on performance of the saw while cutting, adjust the high speed mixture screw in 1/16 turn increments as follows:
  - *Clockwise if saw smokes or loses power in the cut. Do not adjust for best power by sound or speed, but judge by how well the saw performs in the cut.*
  - *Counterclockwise if the saw has speed while out of the cut, but dies in the cut or lacks power while cutting.*
- Repeat the test cut.
- Continue with 1/16 turn adjustments until the saw performance is acceptable while cutting.
- After completing adjustments, check for acceleration.

Acceleration check

- If the engine dies or hesitates instead of accelerating, turn the low speed mixture screw 1/16 of a turn at a time counterclockwise until you have smooth acceleration.
- Check the idle speed for stability and no chain movement. Adjust as necessary.
- Recheck for smooth acceleration and stable idle. Repeat process as necessary for acceptable performance.

CAUTION: A carburetor setting that is too lean (clockwise adjustment on high speed screw for maximum speed) will cause engine damage to any 2-cycle engine from overheating and lack of lubrication. Never set the high speed screw so far clockwise that you have high engine speed lacking power to cut. An effective approach follows.

- Turn high speed screw counterclockwise until engine loses power while cutting.
- Turn high speed screw clockwise using 1/16 turn increments *only until* the engine has power while cutting.

G. STORAGE

Immediately prepare your unit for storage at the end of the season or if it will not be used for 30 days or more.

⚠ WARNING

Allow the engine to cool, and secure the unit before storing or transporting it in a vehicle. Store unit and fuel in an area where fuel vapors cannot reach sparks or open flames from water heaters, electric motors or switches, furnaces, etc. Store unit with all guards in place. Position so that any sharp object such as the chain cannot accidentally cause injury to passers by. Store the unit out of the reach of children.

GAS CHAIN SAW STORAGE INSTRUCTIONS

If your chain saw is to be stored for a period of time, clean it thoroughly prior to storage. Remove any dirt, sawdust, leaves, oil, grease, etc. Store in a clean dry area.

- Clean the entire unit.
- Clean air filter. Refer to "General Maintenance."
- Inspect the bar clamp area and clean any dirt, sawdust, grass, or debris that has collected. Inspect the guide bar and chain; replace a guide bar that is bent, warped, cracked, broken, or damaged in any other way. Replace a damaged or worn chain.
- Lightly oil external metal surfaces to prevent rust from forming.

CAUTION: Wear gloves when handling the chain. The chain is sharp and can cut you even when it is not moving.

- Apply a coating of oil to the entire surface of the guide bar and chain; wrap it in heavy paper or cloth.
- Be sure all handles and guards are in place and are securely fastened. Replace any damaged parts.

ENGINE

Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur to fuel system components.

Follow these instructions:

1. Drain the fuel from the unit into an approved fuel container.
2. Drain the fuel lines and carburetor by starting the engine and letting it run until it stops.
3. Allow the engine to cool before storage.

IMPORTANT: It is important to prevent gum deposits from forming in essential fuel system parts such as the carburetor, fuel filter, fuel line, or tank during storage. Also, experience indicates that alcohol blended fuels called gasohol (or using ethanol or methanol) can attract moisture, which leads to oil/gas separation and formation of acids during storage which will damage your engine. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer.

Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to the gasoline in the fuel tank or fuel storage container. Run engine at least 5 minutes after adding stabilizer to allow stabilizer to reach the carburetor.

Poulan Pro 40:1 2-cycle engine oil is specially blended with fuel stabilizers.

- Remove spark plug and pour 1 teaspoon of 40:1 oil mix through the spark plug opening. Slowly pull the starter rope 8 to 10 times to distribute oil to inner engine surfaces.
- Replace spark plug with a new one of the recommended type and heat range.
- Clean air filter. Refer to "General Maintenance."
- Reinstall all covers and hardware removed for access; tighten all screws and fasteners.
- Check entire unit for loose screws, nuts, and bolts. Replace any damaged, broken, or worn parts.
- Use fresh fuel having the proper gasoline to oil ratio at the beginning of the next season.

OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust. Rust and/or dirt in your fuel system will cause problems.
- Store your unit in a well ventilated area and covered, if possible, to prevent dust and dirt accumulation. Do not cover with plastic. Plastic cannot breathe and will induce condensation and eventual rust or corrosion.

IMPORTANT: Never cover unit while engine and exhaust areas are still warm.

H. TROUBLE SHOOTING CHART

SYMPTOM	CAUSE	REMEDY
Engine will not start or will run only for a few seconds after starting.	1. Fuel tank empty. 2. Engine flooded. 3. Spark plug not firing. 4. Fuel not reaching carburetor. 5. Carburetor requires adjustment. 6. Stop switch off. 7. None of the above.	1. Fill tank with correct fuel mixture. 2. See "Starting Instructions." 3. Install new plug/check ignition switch. 4. Replace fuel filter; inspect fuel line. 5. See "Carburetor Adjustments." 6. Move switch to the "START" position. 7. Contact your Authorized Service Dealer.
Engine will not idle properly.	1. Idle speed set too fast or too slow. 2. Low speed mixture requires adjustment. 3. Crankshaft seals worn. 4. Compression low. 5. None of the above.	1. See "Carburetor Adjustments." 2. See "Carburetor Adjustments." 3. Contact your Authorized Service Dealer. 4. Contact your Authorized Service Dealer. 5. Contact your Authorized Service Dealer.
Engine will not accelerate, lacks power, or dies under a load.	1. Air filter dirty. 2. Spark plug fouled. 3. Carburetor requires adjustment. 4. Exhaust ports or muffler outlets plugged. 5. Compression low. 6. None of the above.	1. Clean or replace air filter. 2. Clean or replace spark plug and re-gap. 3. See "Carburetor Adjustments." 4. Contact your Authorized Service Dealer. 5. Contact your Authorized Service Dealer. 6. Contact your Authorized Service Dealer.
Engine smokes excessively.	1. Air filter dirty. 2. Fuel mixture incorrect. 3. High speed mixture requires adjustment. 4. Choke partially on.	1. Clean or replace air filter. 2. Refuel with correct fuel mixture. 3. See "Carburetor Adjustments." 4. Push choke knob in.
Engine runs hot.	1. Fuel mixture incorrect. 2. High speed mixture set too low (Lean). 3. Spark plug incorrect. 4. Exhaust ports or muffler outlets plugged. 5. Carbon build-up on muffler outlet screen. 6. Fan housing/cylinder fins dirty. 7. None of the above.	1. See "Fueling Your Unit." 2. See "Carburetor Adjustments." 3. Replace with correct plug. 4. Contact your Authorized Service Dealer. 5. Clean spark arrestor screen. 6. Clean area. 7. Contact your Authorized Service Dealer.
Oil inadequate for bar and chain lubrication.	1. Oil tank empty. 2. Oil pump or oil filter clogged. 3. Guide bar oil hole blocked.	1. Fill oil tank. 2. Contact your Authorized Service Dealer. 3. Remove bar and clean.
Chain moves at idle speed.	1. Idle speed requires adjustment. 2. Clutch requires repair.	1. See "Carburetor Adjustments.." 2. Contact your Authorized Service Dealer.
Chain does not move when engine is accelerated.	1. Chain tension too tight. 2. Carburetor requires adjustment. 3. Guide bar rails pinched. 4. Clutch slipping. 5. Chain brake engaged.	1. See "Chain Tension." 2. See "Carburetor Adjustments." 3. Repair or replace. 4. Contact your Authorized Service Dealer. 5. Disengage chain brake.
Chain clatters or cuts roughly.	1. Chain tension incorrect. 2. Cutters damaged. 3. Chain worn. 4. Cutters dull, improperly sharpened, or depth gauges too high. 5. Sprocket worn. 6. Chain installed backwards.	1. See "Chain Tension." 2. Contact your Authorized Service Dealer. 3. Resharpen or replace chain. 4. Have chain sharpened. 5. Contact your Authorized Service Dealer. 6. Install chain in right direction.
Chain stops within the cut.	1. Chain cutter tops not filed flat. 2. Guide bar burred or bent; rails uneven. 3. Clutch slipping.	1. Have chain sharpened. 2. Repair or replace guide bar. 3. Contact your Authorized Service Dealer.
Chain cuts at an angle.	1. Cutters damaged on one side. 2. Chain dull on one side. 3. Guide bar bent or worn.	1. Have chain sharpened. 2. Have chain sharpened. 3. Replace guide bar.

I. MAINTENANCE CHART

		before starting work	after finishing work or daily	after each refueling stop	weekly	monthly	yearly
Complete machine.	Visual inspection (condition, leaks)	✓					
	Clean		✓				
Throttle trigger; safety throttle lock; stop switch.	Check operation	✓	✓				
Filter in fuel tank.	Replace pick-up – when clogged or dirty.						✓
Fuel tank.	Inspect	✓					✓
Chain oil tank.	Clean						✓
Chain lubrication.	Fill			✓			
Saw chain.	Inspect (sharpness, wear, damage)	✓		✓			
	Check chain tension.	✓		✓			
	Have sharpened – when dull.						
Guide bar.	Inspect (wear, damage)	✓		✓			
	Clean.				✓		
	Deburr					✓	
	Replace – when worn or damaged.						
Chain sprocket.	Check – when replacing chain.						
Air filter	Clean.	✓			✓		
	Replace – when worn or damaged.						
Cylinder fins.	Clean				✓		
Carburetor.	Check idle adjustment – chain must not turn at idle.	✓					
Spark plug.	Replace						✓
All accessible screws and nuts (not adjusting screws).	Retighten.	✓					
Spark arrestor screen.	Replace – when worn or damaged.	✓					

PARTS AND SERVICE

FOR SERVICE OR REPLACEMENT PARTS:

1. Consult your dealer/place of purchase.

2. Consult the yellow pages of your phone directory for the name of the nearest POULAN/WEED EATER Master Service Dealer (under "saws" for Chain Saws or under "lawnmowers" for Trimmers, Brushcutters, and Blowers).

3. For replacement parts, have available the following information:
   a. Description of the tool.
   b. Model number.
   c. Description of part.

4. If you cannot receive satisfactory service locally, call our Customer Assistance number 1-800-554-6723.

PIEZAS DE REPUESTO Y SERVICIO

PARA SERVICIO O PIEZAS DE REPUESTO:

1. Consulte con su concesionario/lugar de compra.

2. Consulte las páginas amarillas de su guía telefónica para obtener el nombre del concesionario de servicio principal de POULAN/WEED EATER (bajo "sierras/saws" para motorsierras o bajo "cortacéspedes/lawnmowers" para orilladoras, cortadoras de malezas y spoladoras).

3. Para piezas de repuesto, tenga a la mano la información siguiente:
   a. Descripción de la herramienta.
   b. Número de modelo.
   c. Descripción de la pieza.

4. Si no puede conseguir servicio satisfactorio localmente, llame a nuestro número de atención al cliente 1-800-554-6723 (en EE.UU.).

PIÈCES DE RECHANGE ET RÉPARATIONS

POUR OBTENIR DES PIÈCES DE RECHANGE OU FAIRE FAIRE DES RÉPARATIONS :

1. Consultez votre concessionnaire.

2. Consultez les pages jaunes de votre annuaire téléphonique pour trouver le nom de votre concessionnaire POULAN/WEED EATER le plus proche. Cherchez dans le rubrique tronçonneuse/saws ou tondeuse/lawnmowers.

3. Pour les pièces de rechange préparez :
   a. Une description de l'outil.
   b. Le numéro du modèle.
   c. Une description de la pièce.

4. Si vous ne pouvez pas faire réparer votre unité localement appelez le numéro d'assistance par télélephone au 1-800-554-6723.

POULAN/WEED EATER
DIVISION WCI OUTDOOR PRODUCTS, INC.
Shreveport, Louisiana 71129 U.S.A.

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